

# The Impact of Foreign Direct Investment on the Economic Growth in Cambodia: Empirical Evidence

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**Abstract:** The foreign direct investment (FDI) inflows are often seen as the important catalyst for economic growth in the developing countries. This study aims to investigate the impact of FDI on the economic growth of Cambodia by utilizing the time series data throughout 2006-2016. The correlation matrix and multiple regression analysis techniques were used to analyze the collected data. The results of the study reveal that FDI has a positive impact on the economic growth of Cambodia. The study recommends that government should bring reforms in the domestic market to attract more FDI in Cambodia.

**Keywords:** Impact, FDI, Economic growth, Cambodia

## 1. Introduction

The most important factors in the economic growth processing of any country are the commercial transactions and foreign direct investments (FDI). The market opening in economic growth is due mostly to the accumulation of natural capital and the technology transfer. The exporters would try through competition to enter foreign markets by using innovation and production technology. The FDIs increase the exporting capability in the host country and lead to profit increase at a foreign exchange mostly in developing countries. They also increase the provision of funds for domestic investments, encourage the creation of new jobs, reinforce the technology transfer, and increase in total economic growth (Dritsaki & Stiakakis, 2014).

There is a widespread belief among international institutions, academicians, policymakers, and researchers that foreign direct investment has a huge positive impact on the economic growth of developing countries. Foreign Direct investment plays a major role in economic expansion when there is a shortage of domestic savings (Ali & Hussain, 2017). Foreign Direct Investment (FDI) has emerged as the most important source of external resource flows to developing countries over the years and has become a significant part of the capital formation in these countries, despite their share in the global distribution of FDI continuing to remain small or even declining (Falki, 2009).

The role of the foreign direct investment has been widely recognized as a growth-enhancing factor in the developing countries (Falki, 2009). FDI is one of the most famous sorts of investment in the world, and its impact on economic growth is positive (Younus, Sohail, & Azeem, 2014). For developing countries foreign direct investment (FDI) is considered to be a way to transfer technology and capital from other developing and especially developed countries (Melnyk, Kubatko, & Pysarenko, 2014). The economic rationale for offering special incentives to attract FDI frequently derives from the belief that foreign investment produces externalities in the form of technology transfers and spillovers (Carkovic & Levine, 2002). Economic Performance and economic growth of a country are influenced by multiple factors. For economies in general and developing economies in particular, Foreign Direct Investment has been observed

and argued as a significant determinant (Saqib, Masnoon, & Rafique, 2013). Foreign direct investment has been an engine of economic growth in an increasingly globalized world economy and has been one of the most important subjects in the study of international business (Kraja Boriçi & Osmani, 2015). Cambodia became a destination of foreign direct investment (FDI) after the country's first general elections which were held in 1993. Although Cambodia attracted certain amounts of foreign investment before the UN-backed general election in 1993, no reliable firm level longitudinal data on inward FDI could be found (Cuyvers, Soeng, Plasmans, & Van Den Bulcke, 2011). Cambodia actively welcomes FDI activity, and has done so for some years; FDI inflows are seen as one method of boosting economic development and growth, and assisting in the transition process – consisting of both economic reforms and business liberalization measures – underway in the countries (Freeman, 2002).

### **1.1 Problem Statement**

In the Cambodian economy, the sectoral distribution of FDI shows a very uneven pattern. FDI is concentrated in labour intensive, export-oriented manufacturing industries, such as garments and is important in tourism-related sectors such as hotels and restaurants. The cumulative FDI in the agriculture and the agro-industry accounted only for about 5% of the total FDI in the country, although the Cambodian Government encourages FDI in these two sectors (Cuyvers et al., 2011). Furthermore, FDI in Cambodia is very unevenly spread across the country. Phnom Penh, the capital city and the surrounding province, Kandal Province attracted by far the largest share with 82% of total FDI. Moreover, Sihanoukville came in the second position, yet only represented 8% between 1994 and 2004. Although the Government promoted Special Promotion Zones/Special Economic Zones in some parts of the country, most of these areas hosted virtually no FDI (Cuyvers et al., 2011).

### **1.2 Aim of the study**

The main objectives of the study are as follow :

- To investigate the association between FDI and economic growth
- To investigate the impact of FDI on economic growth in Cambodia
- To find out the current status of FDI and economic growth in Cambodia

In response to the above objectives, the following key research questions were asked:

- What is the association between FDI and economic growth?
- How does foreign direct investment affect the economic growth in Cambodia?
- What is the current status of FDI and economic growth in Cambodia?

## **2. Literature Review**

Most of the studies have been done in the field of foreign direct investments and economic growth. Some of the major studies are reviewed as the following:

Silajdzic and Mehic (2015) found that FDI is assumed to directly affect economic growth by contributing to the gross fixed capital formation and indirectly by contributing to knowledge stock. More precisely, in the traditional framework, FDI is expected to directly affect economic growth since FDI is assumed to complement domestic investments, and considered to be an important supplement for capital and investment shortages. Further analysis showed that foreign direct investment has the positive impact on economic growth through knowledge spillovers in transition countries; technological and innovative efforts are suggested to be essential factor underpinning growth performance (Silajdzic & Mehic, 2015). Similarly, the study by Nistor (2014) found the positive impact of FDI on host economies, manifesting differently depending on the area and the region of the foreign investment; its impact depends largely on the quality and quantity of the inflow. The results show that the FDI inflows together with the human capital development contribute strongly to the host country's economic growth (Fadhil & Almsafir, 2015).

In all countries, especially developing, FDI plays a very important role, they are even considered as the engine of economic growth and development. Engaging in good conditions, foreign capital can help reduce the gap between the requirements of capital and national saving, raise skill levels in the host economy, and improve market access as well as contribute to technology transfer and good governance (Abbes, Mostéfa, Seghir, & Zakarya, 2015). Hong (2014) found that FDI exerts a positive impact on the economic development; furthermore, economies of scale, human capital, infrastructure and wage levels, and regional differences interact actively with FDI and promote economic growth in China, while the openness of trade does not significantly induce FDI. Chee and Nair (2010) showed empirical analysis that the development of financial sector enhances the contribution of FDI on economic growth in the region and the complementary role of FDI; meanwhile, it is most important for least developed economies in the region.

As like, FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment; however, the higher productivity of FDI holds only when the host country has a minimum threshold stock of human capital (Borensztein, De Gregorio, & Lee, 1998). On the other hand, a study by Gunby, Jin, and Robert Reed (2017) revealed that the effect of FDI on Chinese economic growth is much smaller than one would expect from a naive aggregation of existing estimates. FDI has a greater impact on per capita output growth than domestic investment for US states that meet a minimum human capital threshold (Ford, Rork, & Elmslie, 2008). Alvarado, Iñiguez, and Ponce (2017) explored that FDI has a positive and significant effect on the product in high-income countries, while in upper-middle-income countries the effect is uneven and non-significant.

A study conducted by Sakyi, Commodore, and Opoku (2015) suggested that an increase in FDI inflows triggers positive GDP growth in the long-run, an empirical investigation from Ghana during the period 1997-2011. Similar findings by Javaid (2016), the FDI has a significant positive impact on the GDP growth of Pakistan both in long-term and in short-term. Also, other factors such as the inflation and the population also show significant effects on the GDP in the long run (Javaid, 2016). Supporting this result, the study conducted by Younus et al. (2014) for the period 2000-2010 confirmed that there exists a positive relationship between economic growth, proxies by gross domestic product (GDP) and FDI in Pakistan. Zhang (2001) provided empirical assessment and found that FDI seems to help China's transition and promote income growth, and this positive growth effect seems to rise over time. As like, Liu, Burrige, and Sinclair (2002) found bi-directional causality between economic growth, FDI and exports. Also, economic development, exports, and FDI appear to be mutually reinforcing under the open-door policy. Based on the empirical analysis and findings, Tang, Selvanathan, and Selvanathan (2008) concluded that rather than crowding out domestic investment, FDI has a complementary relationship with domestic investment. FDI has not only assisted in overcoming shortages of capital, but it has also stimulated economic growth through complementing domestic investment in China (Tang et al., 2008).

An empirical analysis of Bangladesh conducted by Hussain and Haque (2016) reveals that there is a relationship between foreign direct investments, trade, and growth rate of per capita GDP. The further result showed that trade and foreign investment variables have a significant impact on the growth rate of GDP per capita (Hussain & Haque, 2016). The inflow of FDI to India indeed improves TFP growth through positive spillover effects (Choi & Baek, 2017). Another study found that for the Indian economy as a whole, FDI stocks and output are co-integrated in the long run (Chakraborty & Nunnenkamp, 2008). Pegkas (2015) found that FDI has a positive and significant impact on economic growth as economic theory predicts.

Therefore, FDI plays a significant role in economic growth in Eurozone. FDI has been an important source of economic growth for Malaysia, bringing in capital investment, technology

and management knowledg. The study about the relationship between FDI and economic growth in Malaysia for the period 1970-2005 using time series data found that there is a significant relationship between economic growth and foreign direct investment inflows; FDI has a direct positive impact on RGDP (Har, Teo, & Yee, 2008). The basic findings from the empirical studies can be summarized as follows: almost all of the studies have found a significant positive effect of FDI on economic growth.

### **3. Research Methodology**

#### **3.1 Research Design**

The study on the impact of FDI on Economic Growth in Cambodia was conducted using quantitative analysis. Quantitative method will be analyzed to give empirical findings, so the testing of the hypothesized predictors with FDI and Economic Growth is required. The empirical findings used to suggest some essential recommendations to the FDI as well as host country, thus they can identify the relationship between FDI and growth.

The secondary data sources were used to assess the impact of FDI on the economic growth in Cambodia. The study analyzes time series data throughout 2006 – 2016 for the following independent variables including Foreign Direct Investment (FDI), Inflation Rates (CPI), and Foreign Exchange Rate (EXR). The data were obtained from the World Development Indicators (WDI) database published by the World Bank.

#### **3.2 Model Specification**

To test the relationship between economic growth and FDI, Inflation Rates and Exports variables, we estimated a linear regression model of the following form by using the SPSS with Ordinary Least Squares (OLS) estimator.

$$\text{GDP} = C + \beta_1 \text{FDI} + \beta_2 \text{CPI} + \beta_3 \text{EXR} + e$$

Where:

C = Constant term

e = Error term

$\beta_1 \dots \beta_3$  = Regression Coefficients

GDP=Gross Domestic Product (Dependent Variable)

FDI=Foreign Direct Investment

CPI=Consumer Price Index (Inflation Rates)

EXR=Foreign Exchange Rate

### **4. Data Analysis and Interpretation**

#### **4.1 Descriptive Statistics**

The below findings in Table1 indicate the descriptive statistics of studied variables throughout 2006-2016. The minimum value of GDP is USD 7.27 Billion in 2006 while the maximum value of GDP is calculated as USD 20.02 Billion. Moreover, the mean of GDP and standard deviation are USD 13.19 Billion and USD 4.06 Billion, respectively. On the other hand, the mean of FDI is USD 1.38 Billion, the standard deviation is USD 0.56 Billion, the minimum value is 0.48, and the maximum value is 2.29.

**Table 1:** Descriptive Statistics

Variable	Mean	Std.Dev	Min. Value	Max. Value
GDP	13.19	4.06	7.27	20.02
FDI	1.38	0.56	0.48	2.29
CPI	5.60	6.82	-0.66	25.00

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EXR	1.17	0.14	0.97	1.35
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The two control variables are inflation rate and foreign exchange rate with the mean values which are 5.60 and 1.17, respectively. The standard value of CPI is 6.82; the minimum value is -0.66 and 25.00 is the maximum value while the minimum and maximum values of foreign exchange rate are 0.97 and 1.35, respectively.

#### 4.2 Correlation Matrix

**Table 2:** Correlation Matrix

Variables	GDP	FDI	CPI	EXR
GDP	1.00	0.935**	-0.363	0.019
FDI	0.935**	1.00	-0.433	-0.222
CPI	-0.363	-0.433	1.00	-0.019
EXR	0.019	-0.222	-0.019	1.00

\*\* Correlation is significant at the 0.01 level (2-tailed).

The correlation matrix on Table 2 above shows that FDI is positively related to GDP.

#### 4.3 Multiple Regression Analysis

The study conducted multiple regression analysis to determine the relationship between foreign direct investment and economic growth in Cambodia. The findings of the study are presented in the tables below.

**Table 3:** Model Summary

Model	R	R-Square	Adjusted R Square	Std. Error of the Estimate
1	.966a	.934	.905	1.24730

a. Predictors: (Constant), EXR, CPI, FDI

The three independent variables include FDI, inflation rate, and exchange rate that were studied, indicate 93.40% of the variance in economic growth in Cambodia as represented by R<sup>2</sup>. It means that other factors not included in this study contribute 6.6% of the variance in the dependent variable.

**Table 4:** ANOVA

Model	Sum of Squares	Degree of Freedom (df)	Mean Square	F	Sig.
Regression	153.627	3	51.209	32.916	.000b
Residual	10.890	7	1.556		
Total	164.517	10			

a. Dependent Variable: GDP

b. Predictors: (Constant), EXR, CPI, FDI

The findings show that the significance value is less than 0.05, so the model is statistically considerable to predict how FDI, inflation rate, and exchange rate affect the GDP of Cambodia.

The F calculated value is greater than the F critical value which shows that the overall model was significant.

From the regression findings in Table 5 below, the results revealed that a unit increase in FDI would lead to 7.500 rises in GDP; a unit increase in the exchange rate will result in 7.046 increases in GDP, whereas a unit increase in inflation rate (CPI) will lead to only 0.051 rises in GDP. At 5% level of significance and 95% level of confidence, FDI had a 0.000 level of significance; exchange rate had only 0.043, but CPI showed insignificance to GDP.

**Table 5:** Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-5.718	3.912		-1.462	.187
FDI	7.500	.814	1.027	9.208	.000
CPI	.051	.065	.086	.788	.456
Exchange rate	7.046	2.857	.248	2.466	.043

a. Dependent Variable: GDP

#### **4.4 Results Discussion**

The results of the study are very interesting and in line with the results obtained by other researchers on the relationship between economic growth and the FDI. Wang and Blomström (1992) found that FDI flows have a significant effect on the economic growth and it acts as a driving force in the economic growth process. Podrecca and Carmeci (2001) revealed the findings that investment is the most important economic growth determinants as identified by neoclassical and endogenous growth models. The FDI has a significant positive impact on the GDP growth of Cambodia both in long-term and in short-term. Long-run relationships between growth, exports, imports, and FDI are identified in a co-integration framework, in which they found bi-directional causality between economic growth, FDI and exports (Liu et al., 2002). For the Indian economy as a whole, it was found that FDI stocks and output are co-integrated in the long run (Chakraborty & Nunnenkamp, 2008). Similarly, Alvarado et al. (2017) explored that FDI has a positive and significant effect on the product in high-income countries, while in upper-middle-income countries the effect is uneven and non-significant.

## **4. Conclusion and Recommendations**

The study intends to investigate the Impact of foreign direct investment (FDI) on economic growth in Cambodia. The study has used data from 2006 to 2016 by using Two-Stage least squares method of simultaneous equations the results have been estimated. Overall, the empirical results show that there is positive relationship between economic growth (GDP) and FDI contrary to the belief of authorities in charge of growth and development. This positive relationship could be as a result of sufficient FDI fund invested into Cambodia's economy which has been able to exert enough impact to make it positive or growth enhancing. FDI is believed to transfer technology, promote learning by doing, train labor and in general, results in spill-overs of human skills and technology.

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